

Docket No.: 42390.P11434

AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (Original): A method of making a device comprising:
forming two electrodes on a substrate in a plane that is substantially parallel to a plane of the substrate;
creating an electric field between the two electrodes; and
forming a waveguide between the two electrodes in the presence of the electric field, wherein the waveguide is formed in the plane of the two electrodes that is substantially parallel to a plane of the substrate.

2. (Original): The method of claim 1, wherein the two electrodes are lithographically-defined on a substrate.

3. (Original): The method of claim 2, wherein the waveguide comprises an organic crystal material.

4. (Amended): The method of claim 3, wherein the organic crystal material comprises an organic molecule comprising:
a ~~donor~~ donor portion, and
an acceptor portion coupled to the ~~donor~~ donor portion via a conjugated backbone.

Claims 5-11 (Withdrawn)

12. (Amended): A method of making an electro-optic modulator comprising:
forming two electrodes on a substrate in a plane that is substantially parallel to a plane of the substrate;
depositing a dielectric layer at least partially between the two electrodes;
creating an electric field between the two electrodes;

Docket No.: 42390.P11434
Appl. No.: 09/991,337

Docket No.: 42390.P11434

forming a waveguide over the dielectric layer in the presence of the electric field
wherein the waveguide is formed in the plane of the two electrodes that is substantially
parallel to a plane of the substrate; and

depositing a top cladding over the waveguide.

13. (Original): The method of claim 12 further comprising:
polishing the waveguide prior to depositing the top cladding.

14. (Original): The method of claim 13 further comprising:
polishing the waveguide down to a top surface of the two electrodes.

15. (Original): The method of claim 12, wherein forming of the waveguide
further comprises:
growing a crystal by a controlled cooling of a melt.

16. (Original): The method of claim 15, wherein the crystal comprises an organic
molecule comprising a donor, an acceptor, and a conjugated backbone.

17. (Original): The method of claim 12, wherein forming of the waveguide
further comprises:
growing a crystal by controlling a rate of evaporation of a solution.

18. (Original): The method of claim 17, wherein the crystal comprises an organic
molecule comprising a donor, an acceptor, and a conjugated backbone.

19. (Original): The method of claim 12, wherein forming of the waveguide
further comprises:
aligning dipole moments of the waveguide with the electric field as the waveguide
crystallizes.

Docket No.: 42390.P11434

20. (Original): The method of claim 12 further comprising:
applying a voltage to the two electrodes to modulate a light signal in the waveguide.

Claims 21-22 (Canceled)

Claims 23-28 (Withdrawn)

Docket No.: 42390.P11434
Appl. No.: 09/991,337

6